

# Innovative Housing Grants Program

## AN ALTERNATIVE CUL-DE-SAC DESIGN

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### Introduction

This research study developed an alternative cul-de-sac design that goes beyond the traditional approach to cul-de-sac's. To date, cul-de-sac's for the most part have been circular (predicated by turning radii for vehicles) and lots have been orientated

to radiate out from this circumference. This research looks at cul-de-sac's as a means to achieve better urban design by obtaining more lots adjacent to open areas, access to focal points in the community, improved servicing and lower development costs.

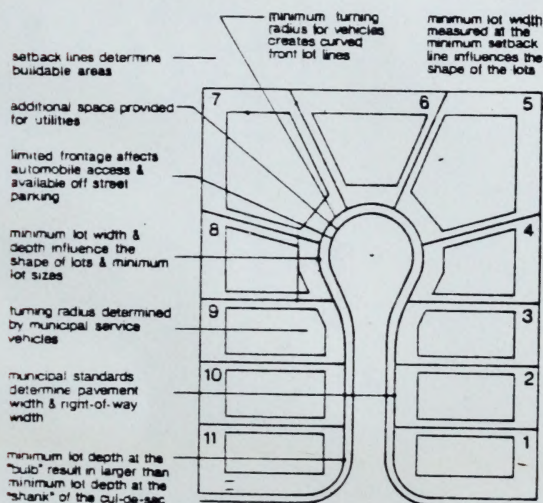


Figure 1. A Traditional Cul-de-sac Design

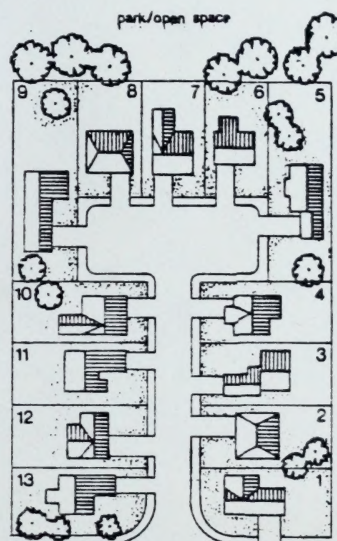


Figure 2. An Alternative Cul-de-Sac Design

**Table 1. Comparison of Conventional and Alternative Cul-de-Sac Designs**

Total Servicing Cost Per Lot		
	Conventional (11 Lots)	Alternative (13 Lots)
Per lot costs (within the cul-de-sac)	\$5,160.00	\$6,141.00
Per lot costs for 50% of the adjacent roadway and services	\$2,526.00	\$1,937.00
Total (per lot)	\$7,686.00	\$8,078.00

#### An Alternative

In the alternative design approach total servicing costs increased by about 5 per cent. However, the number of lots increased by 18 per cent with a 66 per cent increase in the area of premium lots at the head of the cul-de-sac. If the application of the alternative is considered for a larger area, this design has the potential to reduce total lot costs by up to 10 per cent for areas using cul-de-sacs.

#### Conclusions

Under certain circumstances, the Alternative Cul-de-Sac Design permits better design, better use of land, better access to potential amenity areas, higher density and the potential for a better return on investment. Because of the opportunity to reduce development costs, this system could provide more affordable housing.







